



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/609,316	06/30/2000	Michael L. Asmussen	SEDN/5216	2925

56015 7590 02/09/2006  
PATTERSON & SHERIDAN, LLP/  
SEDNA PATENT SERVICES, LLC  
595 SHREWSBURY AVENUE  
SUITE 100  
SHREWSBURY, NJ 07702

EXAMINER
KOENIG, ANDREW Y

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/609,316	ASMUSSEN, MICHAEL L.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Andrew Y. Koenig	2611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 106-120 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 106-120 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 106-120 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 106-110, 112-118, and 120 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,990,927 to Hendricks et al. (hereafter Hendricks) in view of U.S. Patent 5,999,207 to Rodriguez et al. (Rodriguez) and U.S. Patent 5,062,136 to Gattis et al. (Gattis).

Regarding claim 106, Hendricks teaches a level D upgrade module, as shown in figure 12 b, which is an apparatus for upgrading a capability of a set top terminal (STT) (col. 15-16, ll. 58-17, col. 26, ll. 9-16). Hendricks teaches a STT receiving a data stream including a plurality of compressed program signals, decompressing the program signal, and providing a corresponding output signal adapted for use by a display device (col. 10, ll. 48-58). Hendricks teaches a STT interface for communicating between the upgrade and the STT (fig. 5b, 662, col. 15-16, ll. 58-17, col. 26, ll. 9-16). Hendricks teaches an upgrade decryption module (fig. 12B, label 140), which by definition for

decrypting an encrypted program signal to and providing a compressed program signal, which is next logical element in the system (col. 27, ll. 45-65).

Hendricks is silent on an upgrade encryption module for encrypting an upstream communication signal comprising at least one of audio and video data, wherein the apparatus prepares the upstream communication signal for transmission over a transmission network of the cable television program delivery system.

In analogous art, Rodriguez teaches a plug-in component of a set top box (STB) (col. 9, ll. 38-40), which equates to an upgrade module for a set top terminal. Further, Rodriguez teaches using the apparatus to prepare the upstream communication signal for transmission over a transmission network of the cable television program delivery system (col. 7, ll. 41-59) thereby providing video conferencing via a cable network.

One of ordinary skill in the art would recognize the benefit of using an upgrade module for video conferencing in order to enhance the functionality of the device while enabling additional services to be provided to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks by implementing an upgrade module for transmitting an upstream transmission signal comprising audio and video data, wherein the apparatus prepares the upstream communication signal for transmission over a transmission network of the cable television program delivery system as taught by Rodriguez in order to enhance the functionality of the device while enabling additional services to be provided to the user.

Further, the combination of Hendricks and Rodriguez is silent on encrypting the transmission signal.

In analogous art, Gattis teaches encrypting the transmission signal, in that Gattis teaches encryptors and decryptors (fig. 1, label 32A, 36A, fig. 2, labels 32A, 36B) for the benefit of preventing unauthorized access to signals being transmitted (col. 4, ll. 25-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks and Rodriguez by encrypting the transmission signal as taught by Gattis in order to prevent unauthorized access to signals being transmitted (Gattis: col. 4, ll. 27-28).

Regarding claim 107, Hendricks teaches a STT including a first decryption module for decrypting a television program signal according to a first encryption format (fig. 4, label 600) (col. 14, ll. 36-44), and an upgrade decryption module decrypting the downstream communication signal encrypted according to a second encryption format (fig. 12b, label 140, col. 27, ll. 47-65).

Regarding claim 108, Hendricks teaches a first encryption format comprising a video encryption format (fig. 4, label 600, col. 14, ll. 36-44), and a second format comprising an audio encryption format (fig. 12b, label 140, col. 27, ll. 47-65, col. 39, ll. 48-51). However, Hendricks is silent on the second encryption format comprising a video encryption format. Gattis teaches decrypting an encrypted video transmission signal, in that Gattis teaches encryptors and decryptors (fig. 1, label 32A, 36A, fig. 2,

Art Unit: 2611

labels 32A, 36B) for the benefit of preventing unauthorized access to signals being transmitted (col. 4, ll. 25-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks and Rodriguez by using a second encryption format comprising a video encryption format as taught by Gattis in order to prevent unauthorized access to signals being transmitted (Gattis: col. 4, ll. 27-28).

Regarding claim 109, Hendricks teaches a channel decoder (fig. 12b, label 134), for selecting an audio stream (col. 39, ll. 35-47), a demultiplexer (fig. 12b, 138) for coupling a compressed downstream communication signal to the upgrade decryption module, which is shown in figure 12b.

Regarding claim 110, Hendricks teaches an audio decompression element (fig. 12b, label 142), for decompressing the compressed program signal provided by the decryption module, as shown in the logical arrangement of elements in figure 12b (col. 27, ll. 41-50). Further, the combination of Hendricks, Rodriguez, and Gattis teaches a video decompressor for decompressing the compressed downstream communication signal provided by said upgrade decryption module (Rodriguez: col. 7, ll. 17-35, col. 7, ll. 41-59).

Regarding claim 112, Hendricks teaches a first processor (fig. 4, label 602) for controlling circuitry (col. 27, ll. 51-55). Hendricks teaches an upgrade processor fig.

Art Unit: 2611

12b, label 132) communicating with the first processor via said STT interface, wherein the upgrade processor controls the upgrade decryption module, which clearly controls the demultiplexer and decryptor as shown in figure 12b. Hendricks is silent on the program signals being video program signals. Rodriguez teaches a plug-in card for a STB for processing audio and video signals (col. 7, ll. 41-59, col. 9, ll. 38-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the upgrade module of Hendricks by decoding audio and video signals as taught by Rodriguez in order to enhance the functionality of the settop while providing the functionality of video conferencing.

Regarding claim 113, Hendricks teaches providing user interface menu via the STT (fig. 21, col. 40, ll. 27-32).

Regarding claim 114, Hendricks teaches the upgrade apparatus providing user interface menu imagery via a visual display to the user (col. 27-28, ll. 60-9).

Regarding claim 115, Hendricks teaches a STT with a first circuitry receiving a data stream including a plurality of compressed program signals, decompressing the program signal, and providing a corresponding output signal adapted for use by a display device (col. 10, ll. 48-58). Hendricks teaches an upgrade circuitry (fig. 12B, label 130), by providing a tuner (fig. 12b, label 134), decryptor (fig. 12b, label 140), and a decompressor (fig. 12b, label 142). Hendricks teaches a STT interface for

communicating between the upgrade and the STT (fig. 5b, 662, col. 15-16, ll. 58-17, col. 26, ll. 9-16).

Hendricks is silent on an upgrade encryption module for encrypting an upstream communication signal comprising at least one of audio and video data, wherein the apparatus prepares the upstream communication signal for transmission over a transmission network of the cable television program delivery system.

In analogous art, Rodriguez teaches a plug-in component of a set top box (STB) (col. 9, ll. 38-40), which equates to an upgrade module for a set top terminal. Further, Rodriguez teaches using the apparatus to prepare the upstream communication signal for transmission over a transmission network of the cable television program delivery system (col. 7, ll. 41-59) thereby providing video conferencing via a cable network.

One of ordinary skill in the art would recognize the benefit of using an upgrade module for video conferencing in order to enhance the functionality of the device while enabling additional services to be provided to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks by implementing an upgrade module for transmitting an upstream transmission signal comprising audio and video data, wherein the apparatus prepares the upstream communication signal for transmission over a transmission network of the cable television program delivery system as taught by Rodriguez in order to enhance the functionality of the device while enabling additional services to be provided to the user.



Further, the combination of Hendricks and Rodriguez is silent on encrypting the transmission signal.

In analogous art, Gattis teaches encrypting the transmission signal, in that Gattis teaches encryptors and decryptors (fig. 1, label 32A, 36A, fig. 2, labels 32A, 36B) for the benefit of preventing unauthorized access to signals being transmitted (col. 4, ll. 25-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks and Rodriguez by encrypting the transmission signal as taught by Gattis in order to prevent unauthorized access to signals being transmitted (Gattis: col. 4, ll. 27-28).

Regarding claim 116, Hendricks teaches a STT including a first decryption module for decrypting a program signal according to a first encryption format (fig. 4, label 600) (col. 14, ll. 36-44), and an upgrade decryption module decrypting a program signal encrypted according to a second encryption format (fig. 12b, label 140, col. 27, ll. 47-65).

Regarding claim 117, Hendricks teaches a first encryption format comprising a video encryption format (fig. 4, label 600, col. 14, ll. 36-44), and a second format comprising the second encryption format (fig. 12b, label 140, col. 27, ll. 47-65, col. 39, ll. 48-51).

Regarding claim 118, Hendricks teaches an upgrade channel decoder (fig. 12b, label 134), for selecting an encrypted communication signal (col. 39, ll. 35-47), a demultiplexer (fig. 12b, 138) for coupling the compressed communication stream to an upgrade decompression module, which is shown in figure 12b. Further, the combination of Hendricks, Rodriguez, and Gattis teaches a video decompressor for decompressing the compressed downstream communication signal provided by said upgrade decryption module (Rodriguez: col. 7, ll. 17-35, col. 7, ll. 41-59).

Regarding claim 120, Hendricks teaches a level D upgrade module, as shown in figure 12 b, which is an apparatus for upgrading a capability of a set top terminal (STT) (col. 15-16, ll. 58-17, col. 26, ll. 9-16). Hendricks teaches a STT receiving a data stream including a plurality of compressed program signals, decompressing the program signal, and providing a corresponding output signal adapted for use by a display device (col. 10, ll. 48-58). Hendricks teaches an upgrade decryption module (fig. 12B, label 140), which by definition for decrypting an encrypted program signal to and providing a compressed program signal, which is next logical element in the system (col. 27, ll. 45-65).

Hendricks is silent on an encryption module for encrypting an upstream communication signal comprising audio and video data and a transmitter for transmitting the upstream communication signal for transmission over a transmission network of the cable television program delivery system.

In analogous art, Rodriguez teaches a plug-in component of a set top box (STB) (col. 9, ll. 38-40), which equates to an upgrade module for a set top terminal. Further, Rodriguez teaches a transmitter for transmitting the upstream communication signal for transmission over a transmission network of the cable television program delivery system (col. 7, ll. 41-59) thereby providing video conferencing via a cable network.

One of ordinary skill in the art would recognize the benefit of using an upgrade module for video conferencing in order to enhance the functionality of the device while enabling additional services to be provided to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks by implementing an upgrade module for transmitting an upstream transmission signal comprising audio and video data, wherein the apparatus prepares the upstream communication signal for transmission over a transmission network of the cable television program delivery system as taught by Rodriguez in order to enhance the functionality of the device while enabling additional services to be provided to the user.

Further, the combination of Hendricks and Rodriguez is silent on encrypting the transmission signal.

In analogous art, Gattis teaches encrypting the transmission signal, in that Gattis teaches encryptors and decryptors (fig. 1, label 32A, 36A, fig. 2, labels 32A, 36B) for the benefit of preventing unauthorized access to signals being transmitted (col. 4, ll. 25-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks and Rodriguez by encrypting the

transmission signal as taught by Gattis in order to prevent unauthorized access to signals being transmitted (Gattis: col. 4, ll. 27-28).

4. Claims 111 and 119 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,990,927 to Hendricks et al. (hereafter Hendricks), U.S. Patent 5,999,207 to Rodriguez et al. (Rodriguez), and U.S. Patent 5,062,136 to Gattis et al. (Gattis) in view of U.S. Patent 5,867,223 to Schindler et al. (Schindler).

Regarding claim 111, Hendricks teaches a demultiplexer (fig. 12b, label 138), for extracting an encrypted data stream for the demodulated data stream (as shown by the logical order elements), and the encrypted data stream coupled to said upgrade decryption module, as shown in figure 12b, see also col. 27, ll. 45-60. However, Hendricks, Rodriguez, and Gattis are silent on a demultiplexer demultiplexing audio and video signals from the downstream signal and a synchronizer for synchronizing the demultiplexed audio and video signals. In analogous art, Schindler teaches a demultiplexer for demultiplexing audio and video signals from the downstream signal (fig. 15, label 1524, col. 20, ll. 6-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks, Rodriguez, and Gattis by demultiplexing audio and video signals from the downstream signal using a

Art Unit: 2611

demultiplexer as taught by Schindler in order to retrieve the corresponding packets of information sent over the network and route the packets to the appropriate device.

Hendricks, Rodriguez, Gattis, and Schindler teach decoding each of the audio and video signals, but are silent on synchronizing the signals. Official Notice is taken that synchronizing audio and video signals is well known in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks, Rodriguez, Gattis, and Schindler by synchronizing the signals in order to accurately present and coordinate the conference content.

Regarding claim 119, Hendricks teaches a demultiplexer (fig. 12b, label 138), for extracting an encrypted data stream for the demodulated data stream (as shown by the logical order elements), and the encrypted data stream coupled to said upgrade decryption module, as shown in figure 12b, see also col. 27, ll. 45-60. However, Hendricks, Rodriguez, and Gattis are silent on a demultiplexer demultiplexing audio and video signals from the downstream signal and a synchronizer for synchronizing the demultiplexed audio and video signals. In analogous art, Schindler teaches a demultiplexer for demultiplexing audio and video signals from the downstream signal (fig. 15, label 1524, col. 20, ll. 6-25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks, Rodriguez, and Gattis by demultiplexing audio and video signals from the downstream signal using a

Art Unit: 2611

demultiplexer as taught by Schindler in order to retrieve the corresponding packets of information sent over the network and route the packets to the appropriate device.

Hendricks, Rodriguez, Gattis, and Schindler teach decoding each of the audio and video signals, but are silent on synchronizing the signals. Official Notice is taken that synchronizing audio and video signals is well known in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks, Rodriguez, Gattis, and Schindler by synchronizing the signals in order to accurately present and coordinate the conference content.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y. Koenig whose telephone number is (571) 272-7296. The examiner can normally be reached on M-Th (7:30 - 6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ayk

A handwritten signature in black ink, appearing to be 'Ayk' followed by a large, stylized flourish or loop.